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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/051,547	04/07/1998	TAKAO YAMAGUCHI	MTS-2570	8127
7590 05/19/2004 RATNER & PRESTIA SUITE 301 ONE WESTLAKES BERWYN PO BOX 980 VALLEY FORGE, PA 194820980			EXAMINER WONG, ALLEN C	
			ART UNIT 2613	PAPER NUMBER 32

DATE MAILED: 05/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/051,547

Applicant(s)

YAMAGUCHI ET AL.

Examiner

Allen Wong

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2004.
2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-15,20,21 and 24-31 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1,3-15,20,21 and 24-31 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1, 20, 21, 24, 25 and 27-29 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-15, 20, 21, 24-26 and 27-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lane et al. (5,377,051), Clapp (4,562,466), and Caldara (5,822,540) in view of Hernandez-Valencia (6,266,327).

Regarding claim 1, Lane discloses a picture coding and decoding apparatus comprising:

a picture coding apparatus including picture coding means of coding pictures and providing a picture identifier for each picture as an I, P or B picture (fig.8a, element 102 and col.25, lines 23-42, Lane discloses the identification of various data types and thus by identifying the various video data types, the picture coding method will be determined, thus, Lane discloses a picture identifier for each picture),

priority providing means of correlating each coded picture with a priority identifier which assigns a priority level to one or more frames of the coded pictures (col.25, line 54 to col.26, line 40; Lane discloses the prioritization scheme for each coded picture

Art Unit: 2613

information with a priority identifier or "priority level" as shown in the table on col.6 where there are eight priority levels), and

transmission control means of transmitting or recording the coded pictures with the priority identifiers (note fig.8a, element 109 is a transport encoder that controls what is being transmitted and how the video data is prioritized, where element 105 is a prioritizer that prepares the pictures for transmission with priority identifiers); and

a picture decoding apparatus including reception control means of receiving or reading the coded pictures with the priority identifiers (fig.9b, element 208 is the transport and priority decoder where the coded pictures are received along with the priority identifiers, and that element 214 is the priority decoder that receives the priority identifiers),

picture decoding means of decoding the coded pictures with the priority identifiers (fig.9b, element 216 is the picture decoding means where the output of element 216 goes to a display circuit for sequentially viewing the decoded pictures since priority identifiers were taken into account, also, in col.35, ln.34-44, Lane discloses that the priority decoder 214 combines the data of various priority identifiers into a data stream of codewords that the element 216 can properly process for decoding), and

wherein said priority identifier is used by the picture decoding apparatus (note fig. 9B shows the "priority level" or priority identifier is used by the picture decoding apparatus 208, moreover, in col.35, ln.34-44, Lane discloses that the priority decoder 214 combines the data of various priority identifiers into a data stream of codewords that the element 216 can properly process).

Lane does not disclose the limitation of “determine whether each picture should be processed or not be processed according to a processing load or a processing capacity of the picture decoding apparatus, and each priority identifier is used independently of the picture identifiers and independently of whether the picture is an I, P or B picture.” However, Clapp teaches the concept of determining whether frames should be discarded or not for maintaining sync between the transporting end and the receiving end (col.8, lines 56+; note the processing load or processing capacity of the decoder buffer is checked to determine whether it is appropriate to drop or discard frames regardless of the picture identifier or the picture type, thus I, P or B pictures can be discarded). Clearly, Clapp teaches this well known concept of discarding frames to maintain sync. Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Lane’s system with the priority identifier with Clapp’s data transmission/reception control system together as a whole for implementing picture processing according to the processing load of a terminal so as to prevent data overload on the receiving end so as to maintain a synchronous connection when receiving video information for display. Doing so would minimize data errors and discrepancies when viewing real-time video.

In regards to the new limitation “a decision to discard or not discard a picture is based on priority identifier”, Lane discloses the use of a priority identifier (note fig. 9B shows the “priority level” or priority identifier is used by the picture decoding apparatus 208, moreover, in col.35, ln.34-44, Lane discloses that the priority decoder 214 combines the data of various priority identifiers into a data stream of codewords that the

Art Unit: 2613

element 216 can properly process). Lane does not disclose a decision to discard or not discard a picture is based on priority identifier. However, Caldara teaches the decision to discard or not discard a picture is based on priority identifier (col.2, ln.19-31; Caldara discloses that frames can be marked for discard by prioritization of these frames to determine which frames are to be discarded, and col.3, ln.28-36, Caldara discloses the concept of prioritization levels of frames to be discarded). Therefore, it would have been obvious to one of ordinary skill in the art to take the teachings of Lane, Clapp and Caldara, as a whole, for utilizing a decision process of discarding frames based on priority so as to determine which frames should be discarded in order to improve image data transmission and coding/decoding efficiency.

Although Lane, Clapp and Caldara do not specifically disclose discarding a picture includes discarding an end-of-frame, however, Hernandez-Valencia teaches discarding a picture includes discarding an end-of-frame (col.9, ln.29-46, Hernandez-Valencia discloses that cells belonging to the non-conforming frames, including end-of-frame, are discarded). Therefore, it would have been obvious to one of ordinary skill in the art to incorporate the teachings of Lane, Clapp, Caldara and Hernandez-Valencia, as a whole, for efficiently transmitting frame data by clearly, distinctly identify conformance of frames so as to smoothly transmit frame data (Hernandez-Valencia col.2, ln.48-56).

Note claims 10, 12-15, 20, 21, 24-26 and 27-31 have similar corresponding elements.

Art Unit: 2613

As for claims 3-5 and 11, Lane discloses the prioritization of encoded video data (see col. 25 to col. 30 where Lane elaborates on the prioritization schemes, the details of how video data is prioritized, and the importance of prioritization).

Regarding claim 6, Lane discloses the determining of the priority depending on the execution rate (col.30, lines 46-50; note "3X" is the execution rate).

Regarding claims 7 and 9, Lane discloses the prioritization of intraframe coded pictures (see chart in col.30 where "intra-coded image" are prioritized at priority level 3-4).

Regarding claim 8, Lane discloses the prioritization of interframe coded pictures (see chart in col.30 where "inter-coded image" are prioritized at priority level 5-7).

Conclusion

2. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen Wong whose telephone number is (703) 306-5978. The examiner can normally be reached on Mondays to Thursdays from 8am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (703) 305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Allen Wong
Examiner
Art Unit 2613

AW
5/12/04


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